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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/088,008

06/24/2002

Oliver K. Valet

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11/17/2004

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EXAMINER

STOCK JR, GORDON J

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,008

Applicant(s)

VALET ET AL.

Examiner

Gordon J Stock

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 8, 12-14, 17-21, 23 and 26 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 9-11, 15, 16, 22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) ✓
Paper No(s)/Mail Date 20020624
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Drawings and Specification

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the AD converter card with integrated processor of claims 14 and 18 and the optical unit for determining the size and number of particles in the air flow of claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. In addition, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "6" has been used to designate both spectrometer and minispectrometer.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The disclosure is objected to because of the following: on page 7 lines 1-6 it is unclear as to how the laser detects and selects properties from the particle scattering in relation to Fig. 1.

Clarification is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: means of logical linking the scattering light measuring unit and the optical system of the identification unit of claim 3 lacks antecedent basis; resolution of at least fifteen wave numbers of claim 12 lacks antecedent basis; replacing the microspectrometer with some other device in claim 13 lacks antecedent basis

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 5, 12-14, 23, 26** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claims **5, 12, 23 and 26**, the phrases “in such a way” and “to such a” render the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). **Claim 14** is rejected for being dependent upon a rejected base **claim 12**.

7. Regarding **claim 13**, the phrase “suitable spectroscopic device” of claim 13 renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those

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encompassed by "suitable"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-3, 19-21, 26** are rejected under 35 U.S.C. 102(b) as being anticipated by **Wyatt (4,173,415)**.

As for **claims 1 and 19**, Wyatt in a apparatus for characterizing and differentiating large organic cells discloses the following: air flow is guided at a defined speed by a particle feeder past a first scattered light measuring unit and the scattered light is detected (Figs. 1 and 2; col. 9, lines 49-55; col. 8, lines 10-15; col. 18, lines 1-15); whereas, the speed is reduced and identified with monochromatic light with an identification unit (Fig. 2: 50 and 58; col. 17, lines 45-51). As for **claims 2 and 20**, see **claims 1 and 19** above. In addition, the scattered light measuring unit triggers the optical system of the identification unit by means of a control with control of particle sorting rate (Fig. 5: 78; col. 18, lines 1-15). As for **claim 3 and 21**, see **claims 1 and 19** above. In addition, Wyatt discloses logical linking of the scattered light measuring unit and the optical system of the identification unit with linking of cell sorting rate with identification (Fig. 5: 78, 88, 96; col. 18, lines 1-15). As for **claim 26**, see **claim 19** above. In addition, Wyatt discloses a speed to have measuring time between 1 millisecond and 1 second (col. 18, lines 7-10).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 7, 8, 17, 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wyatt (4,173,415)** in view of **Natarajan et al. (4,264,343)**.

As for **claim 7**, Wyatt in a apparatus for characterizing and differentiating large organic cells discloses the following: a particle feeder (Fig. 1: 2; Fig. 2: 22, 24); an electronic evaluation unit comprising: an optical unit and optical identification unit with excitation laser and angular spectrometer units (Fig. 2: 30, 32, 580, 58); a particle brake (col. 17, lines 45-51); an electronic control (Fig. 5:78). He is silent concerning a corona discharge but teaches electrostatic deflection plates. However, Natarajan in an electrostatic particle collecting apparatus teaches using a corona discharge in order to provide an electrostatic field for particle collecting (col. 2, lines 7-15). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the system comprised a corona discharge in order to provide an electrostatic field to the electrostatic deflection plates for particle sorting.

As for **claim 8**, see **claim 7** above. In addition, the brake is electromagnetic (col. 17, lines 45-51).

As for **claim 17**, see **claim 7** above. In addition, the angular spectrometers comprise 1, 2, 3 arrays of microspectrometers, 10 to 50 discrete detector elements (col. 10, lines 50-55; Figs. 3, 6a, 6b).

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As for **claim 18**, see **claim 7** above. In addition, the control comprises a programmable AD converter card with integrated processor and an integrated control program (Fig. 5: 78, 84, 82, 86, 88, 96; col. 15, lines 1-60).

Allowable Subject Matter

12. **Claims 4, 6, 9-11, 15, 16, 22, 24, 25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5, 12-14 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As to **claim 4**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an optical method for characterization of particulate systems the identification is conducted with combined laser-Raman spectroscopy, in combination with the rest of the limitations of **claims 4-6**.

As to **claim 9**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a device for carrying out a method of optically characterizing particulate systems the optical identification unit comprises an NIR multichannel spectrometer, in combination with the rest of the limitations of **claims 9-14**.

As to **claim 15**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a device for carrying out a method of optically characterizing particulate systems the optical identification unit comprises an NIR multichannel spectrometer, in combination with the rest of the limitations of **claims 15-16**.

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As to **claim 22**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an optical method for characterizing a particular system the identifying step uses combined laser-Raman spectroscopy, in combination with the rest of the limitations of **claims 22-24**.

As to **claim 25**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an optical method for characterizing a particular system the identifying step uses combined laser-Raman spectroscopy, in combination with the rest of the limitations of **claim 25**.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 3,754,830 to Phillips et al.

Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431.

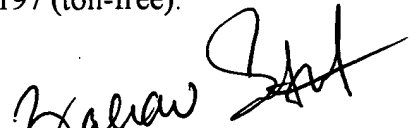
The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



gs
November 10, 2004



Zandra V. Smith
Primary Examiner
Art Unit 2877